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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,473	01/17/2001	John W. Rocheleau	1296-015	8922

7590 04/03/2002

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EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 04/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,473

Applicant(s)

ROCHELEAU, JOHN W.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Claim Objections***

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 13 has been renumbered 14.

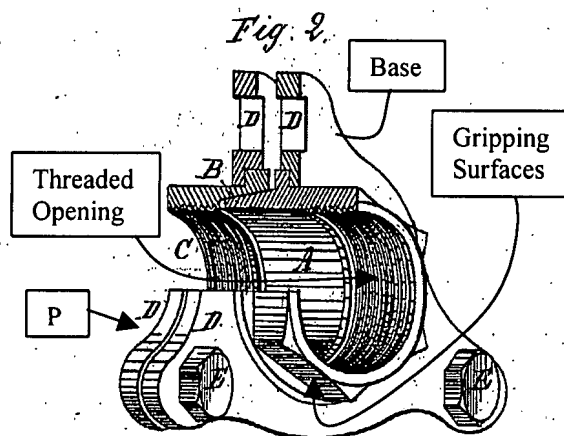
Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 19818, Shaw. In figure 2 below, Shaw discloses a threaded pipe flange (P)



comprising a base portion

having a

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predetermined shape and at least two openings (D) dimensioned to accept at least two mounting bolts; a shoulder portion (A) extending from and integral to the base portion, and the shoulder portion having two to six substantially flat gripping surfaces; at least two mounting bolts (E); and a threaded opening extending through the base and shoulder portion, and dimensioned for attachment to a predetermined threaded pipe. The pipe flange may be attached to a predetermined threaded pipe by aligning the threaded opening with the predetermined threaded pipe, gripping the gripping surfaces of the shoulder portion, and rotating the pipe flange.

Further, it has been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw. Shaw discloses the claimed invention except for a shoulder portion comprising eight gripping surfaces. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a shoulder portion comprising eight gripping surfaces, since it has been held that mere duplication of essential working

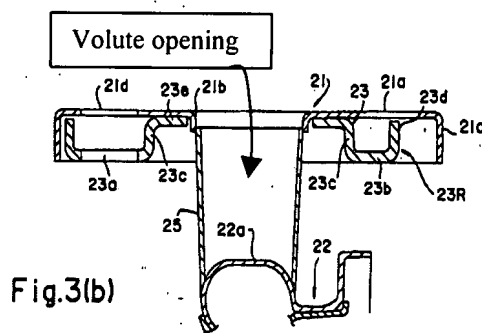
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parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Further, claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of US patent 2653834, Purkhiser in further view of US Patent 2412487, Amley. Shaw discloses the claimed invention except for a base portion having an elliptical or round shape. Purkhiser discloses a base portion (26) having an elliptical shape, and Amley discloses a base portion (12) having a round shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a base portion having an elliptical or round shape, since a change in the shape of a prior art device is a design consideration within the skill of the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Further, claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of US patent 2653834, Purkhiser. Shaw discloses the claimed invention except for the pipe flange being manufactured of a material selected from a group consisting of malleable iron, ductile iron, brass and steel. Purkhiser teaches the pipe flange being manufactured of a material selected from a group consisting of malleable iron, ductile iron, brass and steel (column 3, lines 13-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a pipe flange manufactured of a material selected from a group consisting of malleable iron, ductile iron, brass and steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5133642, Kajiwara, in view of Shaw. Kajiwara discloses on a pump (not shown, but "FIG. 4 is a sectional view...of a pipe joint at the discharge side of a pump"; column 3, lines 45-47); and in figure 3b below, one volute flange (21)

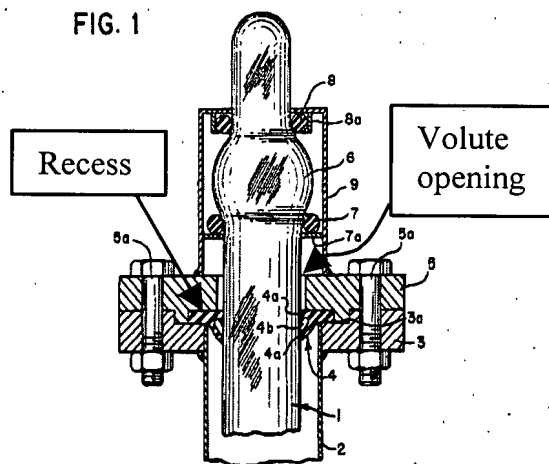


comprising a volute opening, and at least two bolt openings (21a, 21b). Shaw discloses a pipe joint as discussed above in regards to claims 1-3 having the aforementioned features; "the two nuts [Shaw, reference number A] are screwed or otherwise secured onto the ends of the [threaded and not shown] pipes to be joined" (Shaw, column 1, lines 23-25). It is well known in the art to use volute flanges of the type taught by Kajiwara, and pipe joints of the type taught by Shaw to form a piping system. It would be obvious to a person of ordinary skill in the art at the time the invention was made to use Kajiwara's volute flange and Shaw's pipe joint to form a piping assembly.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajiwara in view of Shaw as applied to claims 8 and 12 above, and further in view of US patent 3998477, Delahaye. Kajiwara in view of Shaw fails to disclose a gasket disposed between the pipe flange and the volute flange, and a volute flange with a flat surface

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having a recessed portion surrounding the volute opening. In figure 1 below, Delahaye



discloses a gasket (4), volute flange (5), and a flat surface (3a) having a recessed portion surrounding the volute opening to provide a "leak proof" (Delahaye, column 2, lines 17-18) connection. It would be obvious to a person of ordinary skill in the art at the time the invention was made to provide a gasket and a volute flange with a flat surface having a recessed portion surrounding the volute opening to ensure a leak proof connection.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of Amley '487. Shaw discloses a threaded pipe flange consisting of a base portion having a predetermined shape and at least two openings dimensioned to accept at least two mounting bolts; a shoulder portion extending from and integral to the base portion, the shoulder portion having at least two substantially flat gripping surfaces; at least two mounting bolts; and a threaded opening dimensioned for attachment to a predetermined threaded pipe; wherein the pipe flange may be attached to a predetermined threaded pipe by aligning the threaded opening with the predetermined threaded pipe, gripping the gripping surfaces of the shoulder portion, and rotating the pipe flange. Shaw does

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not disclose the threaded opening extending through the base and shoulder portion.

Amley discloses the threaded opening (17) extending through the base and shoulder portion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to thread the threaded opening through its base and shoulder portion since it was known in the art that threading is useful when connecting a male threaded pipe to female threaded connector.

Allowable Subject Matter

Claim 14 is allowed.

Response to Arguments

Applicant's arguments filed 1/3/2002 have been fully considered but they are not persuasive. The applicant argues:

In both the subsequent action and the present Action, the Examiner has asserted that Applicant's inclusion of this limitation does not define over Shaw. In support of this assertion, the Examiner cited *In re Holte* for the proposition that "the term 'integral' is sufficiently broad to embrace constructions united by such means as fastening and welding". The Applicant again respectfully disagrees that the flange and base portion of Shaw are united by fastening, welding, or via other art recognized means and, as noted below, has supported this position with the attached Declarations Under 37 USC §1.132.

The examiner disagrees. Shaw meets the limitation of being integral. The applicant may be confusing integral with one-piece construction; however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the shoulder portion and base portion in one-piece construction, since one-piece construction, in place of separate elements fastened together, is a design consideration

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within the skill of the art. In re Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

The applicant argues:

Absent the separate flange and bolts, the flange and threaded connection would not remain in contact with one another. In fact, a single flange is never, and cannot be, attached to a single connection. Thus, as the flange and threaded connection are neither fastened, welded nor otherwise attached to one another, they cannot be integral to one another.

The examiner disagrees. The flange and threaded connection, when fastened, welded or otherwise attached to one another, are integral with one another, and can be attached to a threaded pipe. Essentially, once the individual components of Shaw's flange are assembled, they become an integral unit that can attach to a threaded pipe.

The applicant argues:

The Applicant's invention teaches, among other things, a base portion, a shoulder portion, gripping surfaces and a threaded opening wherein all of these features are integral both in form, i.e., unitary, and integral in terms of their functional cooperation. The gripping surfaces cooperate directly with the threaded opening in the shoulder portion by providing a means to use a common wrench to mate a flange with a threaded pipe end. Conversely the Shaw invention teaches no such cooperation between gripping surfaces and a flange.

In response to Applicant's argument, that Shaw teaches no such cooperation between gripping surfaces and a flange, and therefore does not include certain features of Applicant's invention, the limitations on which the Applicant relies (i.e., the gripping surfaces cooperate directly with the threaded opening in the shoulder portion by

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providing a means to use a common wrench to mate a flange with a threaded pipe end) are not stated in the claims. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

The applicant argues:

The Applicant again asserts that claim 8 as are not obvious in light of Shaw, either alone, or in combination with the cited art. As noted in the specification, the principal problem solved by the Applicant's invention is the problem of attaching a pipe flange adjacent to an existing circulator or other device when in close quarters. See *generally page 3, lines 4 - 6*. However, as noted in the Applicant's Paper 6, none of the cited references either discusses this problem, or makes any suggestion for modifying their existing designs to achieve this result.

In response to the applicant's argument that the principal problem solved by the Applicant's invention is the problem of attaching a pipe flange adjacent to an existing circulator or other device when in close quarters, the applicant misinterprets the principle that claims are interpreted in the light of the specification. Although these elements are found as examples in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification to require this limitation.

The applicant argues:

First, as noted above, the problem of attaching circulator flanges to pipes has been known for years and the Shaw patent issued over 100 years ago. Given the knowledge of the problem, and the availability of the Shaw reference for as long as the problem has existed, the Applicant asserts that this factor weighs heavily against a finding of obviousness.

The examiner disagrees. Evidence of long felt need must establish a problem that has existed over a long period of time, and that the invention has actually solved the problem. In re Mixon, 470 F.2d 1374, 176 USPQ 296 (CCPA 1973). The applicant has not provided any concrete evidence that the invention of the instant application has actually solved the problem.

The applicant argues:

Second, as noted in the Rocheleau Declaration, the invention claimed in the present application has been licensed to Taco, Inc., of Cranston, RI. Taco is the largest manufacturer and distributor of circulators in the United States and has been manufacturing and selling flanges under this license for over eighteen months. If the invention were obvious, why would a company like Taco choose to license this patent application?

There are numerous reasons why companies license patents including avoidance of costly litigation. The examiner cannot speculate as to what motivated Taco, Inc. to license the instant application.

Response to Amendment

The declarations under 37 CFR 1.132 filed 1/3/02 are insufficient to overcome the rejection of claims 1-3 based upon 35 U.S.C. 102(b) as being anticipated by US patent 19818, Shaw as set forth in the last Office action because: showing is not commensurate in scope with the claims. The declarants appear to confuse integral with one-piece construction; wherein, integral is sufficiently broad to embrace constructions united by such means as fastening and welding.

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Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the shoulder portion and base portion in one-piece construct, since one-piece construction, in place of separate elements fastened together, is a design consideration within the skill of the art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703) 306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd
March 29, 2002



Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3620